

elna
SWISS DESIGN

Instruction Manual

7100



IMPORTANT SAFETY INSTRUCTIONS

Your 7100 sewing machine is designed and constructed for HOUSEHOLD use only. Read all instructions before using this machine.

DANGER – To reduce the risk of electric shock:

1. Your sewing machine should never be left unattended when plugged in. Always unplug the machine from the electrical outlet immediately after using and before cleaning.
2. Always unplug before replacing light bulb. Replace bulb with same type rated 12 Volts, 5 watts.
3. Do not reach for the machine if it has fallen into water. Unplug immediately.
4. Do not place or store machine where it can fall or be pulled into a tub or sink. Do not place it in or drop it into water or other liquid.

WARNING – To reduce the risk of burns, fire, electrical shock or injury:

1. Do not allow machine to be used as a toy. Supervision is necessary when this machine is used by or near children.
2. Use this sewing machine only for its intended use as described in this manual. Only use attachments recommended by the manufacturer as described in this manual.
3. Never operate this machine if it has a damaged cord or plug, is not working properly, has been dropped or damaged or dropped into water. Return the machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. This machine is equipped with a special connection cord which, if damaged, must be replaced by an identical cord. This can be obtained from your dealer.
5. Never operate the sewing machine with any air opening blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust and fibers.
6. Never drop or insert any object into any opening.
7. Do not use outdoors.
8. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
9. To disconnect, turn machine off and remove plug from outlet.
10. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
11. Keep fingers away from all moving parts, especially the needle.
12. Always use the proper needle plate. The wrong plate can cause the needle to break.
13. Do not use bent needles.
14. Do not pull or push fabric while stitching. This may deflect the needle causing it to break.
15. Switch the sewing machine off when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, changing presser foot, etc.
16. Always unplug the sewing machine from the electrical outlet when removing covers, lubricating or making any other servicing adjustments mentioned in the instruction manual.

SAVE THESE INSTRUCTIONS

IMPORTANT

Be sure to keep machine away from static electricity, heat sources, humidity and direct sunlight.

USA only

Your machine comes equipped with a polarized plug (one prong wider than the other). A polarized plug reduces the risk of electrical shock. This plug is intended to fit into a polarized outlet. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

Use only foot control Model 21371 (UL, CSA).



"Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/electronic products. If in doubt please contact your retailer for guidance."
(European Union only)

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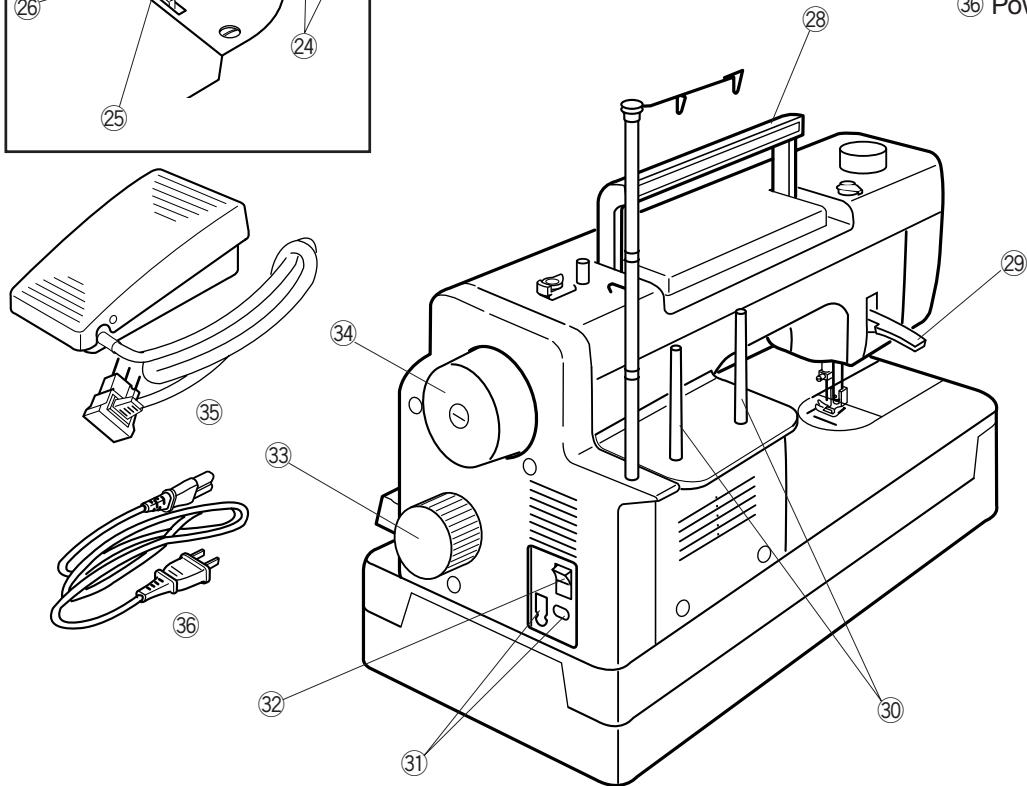
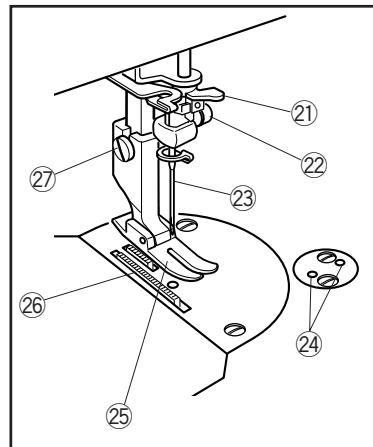
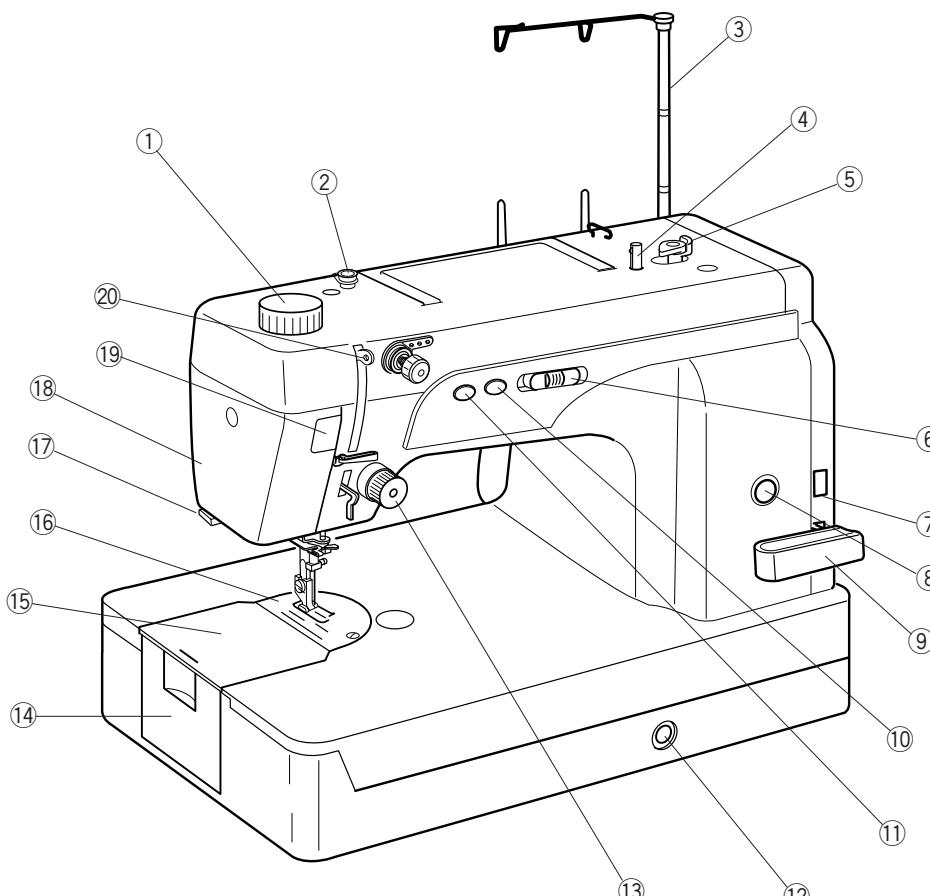
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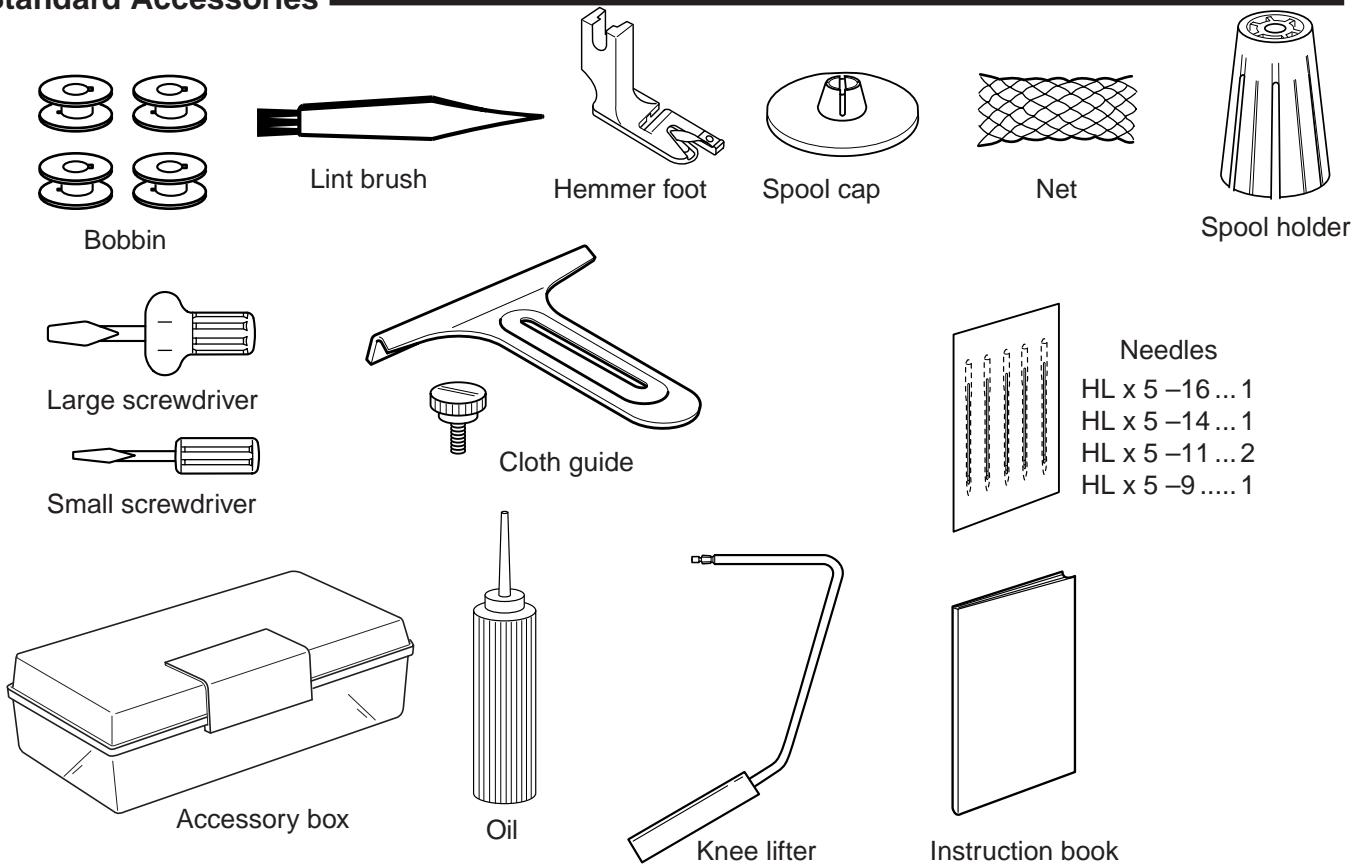
KNOW YOUR MACHINE

Name of Parts

- ① Foot pressure dial
- ② Thread guide
- ③ Retractable thread guide
- ④ Bobbin winder spindle
- ⑤ Bobbin winder stopper
- ⑥ Speed control slider
- ⑦ Stitch length display
- ⑧ Thread cutter button
- ⑨ Reverse stitch lever
- ⑩ Bobbin winding button
- ⑪ Up/Down needle button
- ⑫ Knee lifter socket
- ⑬ Thread tension dial
- ⑭ Hook cover
- ⑮ Hook cover plate
- ⑯ Needle plate
- ⑰ Thread cutter
- ⑱ Face cover
- ⑲ Foot pressure indicator
- ⑳ Thread take-up lever
- ㉑ Needle threader
- ㉒ Needle clamp screw
- ㉓ Needle
- ㉔ Screw holes for attachments
- ㉕ Presser foot
- ㉖ Feed dog
- ㉗ Setscrew
- ㉘ Carrying handle
- ㉙ Presser foot lifter
- ㉚ Spool pins
- ㉛ Machine sockets
- ㉜ Power switch
- ㉝ Stitch length adjustment dial
- ㉞ Handwheel
- ㉞ Foot control
- ㉞ Power supply cord

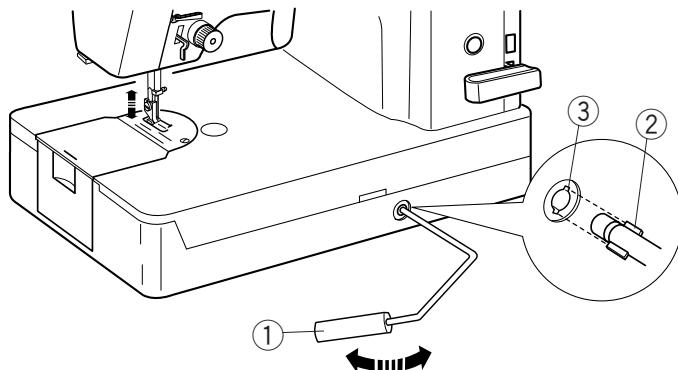


Standard Accessories



To Attach Knee Lifter

The knee lifter is extremely helpful when sewing applique, patchwork and quilting since it allows you to handle the fabric while your knee controls the presser foot.



Match the ribs on the knee lifter with the notches in the knee lifter socket and insert the knee lifter.

- ① Knee lifter
- ② Ribs
- ③ Notches

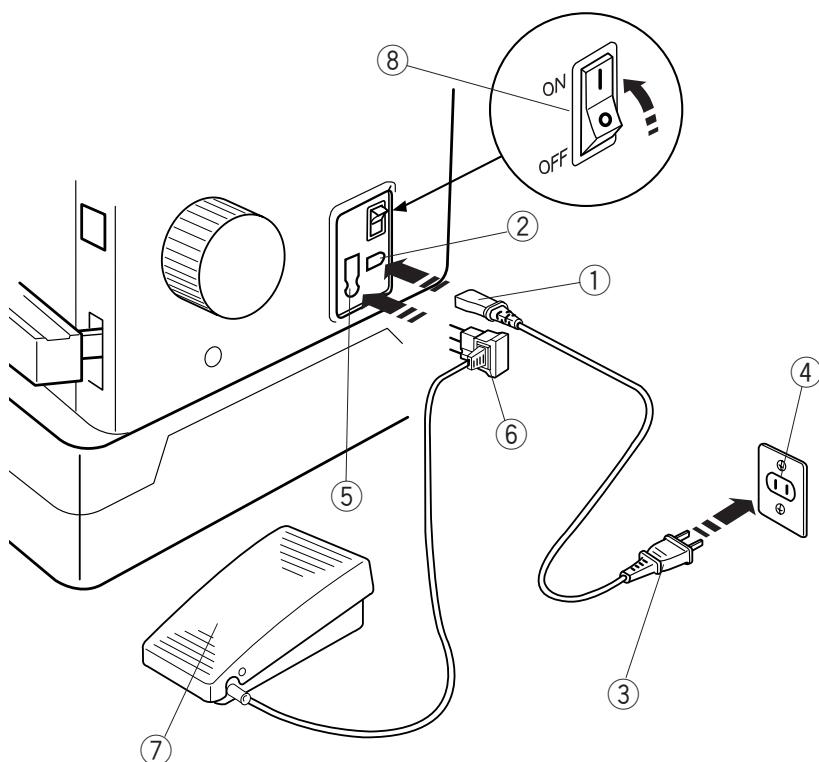
Push the knee lifter with your knee to raise and lower the presser foot.

NOTE:

Do not touch the knee lifter while sewing, otherwise the fabric will not be fed smoothly.

GETTING READY TO SEW

Connecting Machine to Power Supply



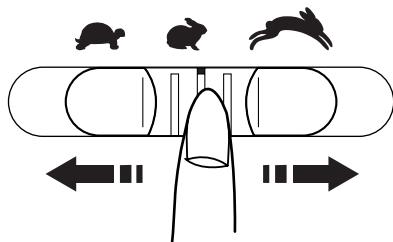
CAUTION

Always turn the power switch off and unplug the sewing machine from the electrical outlet when the machine is not in use.

- ① Machine plug
- ② Machine socket for power supply plug
- ③ Power supply plug
- ④ Outlet
- ⑤ Machine socket for foot control
- ⑥ Foot control plug
- ⑦ Foot control
- ⑧ Power switch

Turn off the power switch.
Insert the foot control plug ⑥ into the machine socket ⑤.
Insert the machine plug ① into the machine socket ②.
Insert the power supply plug ③ into the wall outlet ④.
Turn on the power switch ⑧.

Controlling Sewing Speed

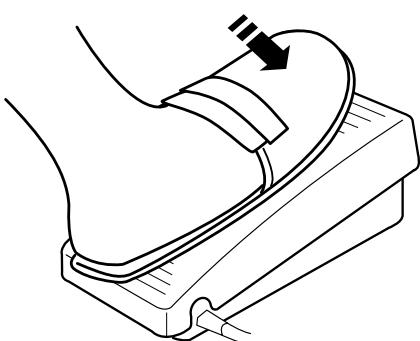


Speed control slider

Sewing speed can be varied with the speed control slider according to your sewing needs.

To increase sewing speed, slide it to the right.

To decrease sewing speed, slide it to the left.



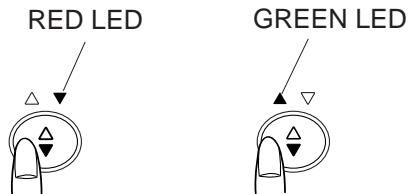
Foot control

Sewing speed is varied by the foot control.

The harder you press down on the foot control, the faster the machine runs.

The machine runs at the maximum speed set by the speed control slider when the foot control is being fully depressed.

Up/Down Needle Position Button

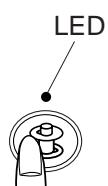


Press this button to bring the needle bar up or down. The RED LED will light up when the needle is down. The GREEN LED will light up when the needle is up.

The machine will stop with the needle up or down depending on the needle position determined by this button.

The machine will always stop with the needle up after auto thread cutting or buttonhole sewing.

Bobbin Winding Button



Press this button to wind the bobbin. The LED will light up when you shift the bobbin winding stopper toward the bobbin and press this button.

The LED signal will turn off after bobbin winding is finished.

Thread Cutter Button



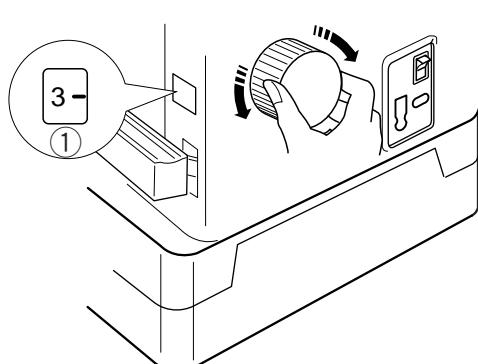
Pressing this button after sewing will trim the threads.

You can continue sewing without pulling the bobbin thread up after trimming the threads.

* Use the thread cutter on the face cover if the thread is thicker than #30.

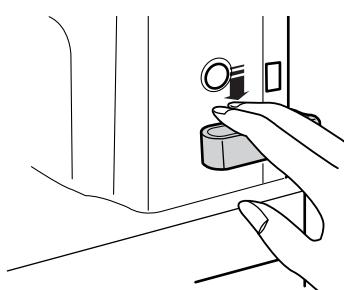
* The foot control and Up/down needle position button cannot be used while the machine is trimming the threads.

Stitch Length Adjustment Dial



You can adjust the stitch length from 0 to 6 mm by turning this dial. The stitch length will be show on the stitch length display ①.

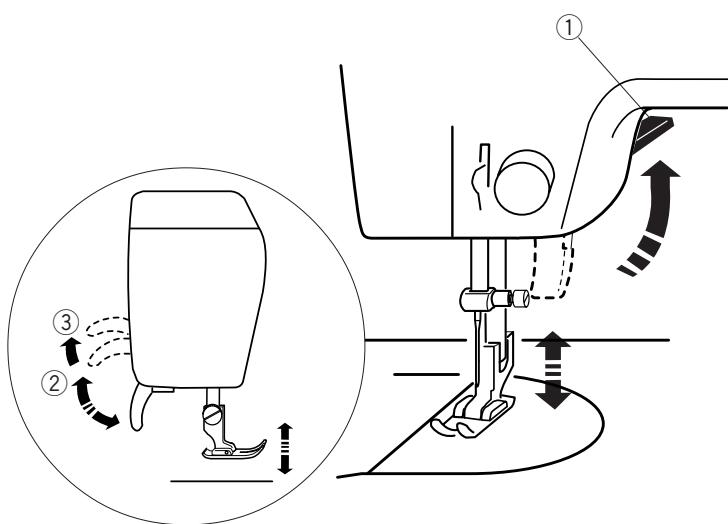
Reverse Stitch Lever



The machine will sew in reverse while the reverse stitch lever is pressed down. The machine will sew forward if the lever is released.

Use the lever to lock the beginning and end of seams.

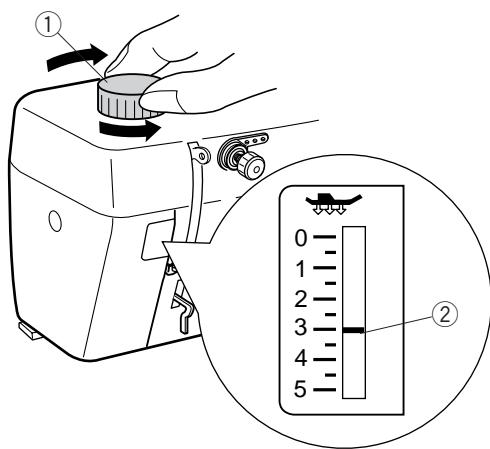
Presser Foot Lifter



- ① Presser foot lifter
- ② Normal up position
- ③ Highest position

The presser foot lifter ① raises and lowers the presser foot. You can raise it higher ③ than the normal up position ② to help you place thick material under the foot.

Foot Pressure Dial



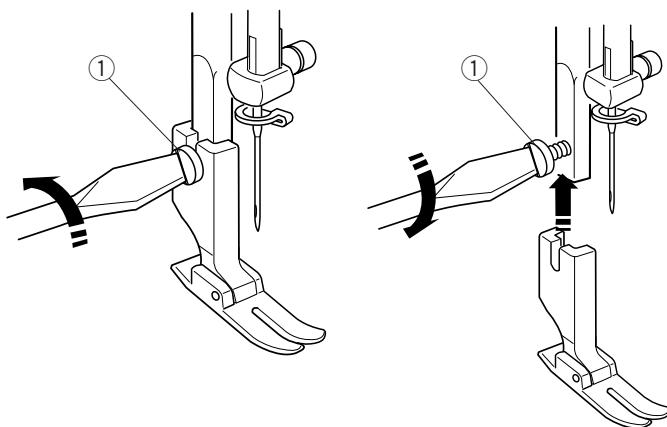
- ① Foot pressure dial
- ② Setting indicator

The foot pressure control dial should be set at "3" for regular sewing. Reduce the pressure for appliqué, sewing on fine synthetics and elastic fabrics. Set the dial at "1" when sewing extra fine fabrics.

NOTE:

Do not reduce the foot pressure lower than "0".

Attaching and Detaching Presser Foot



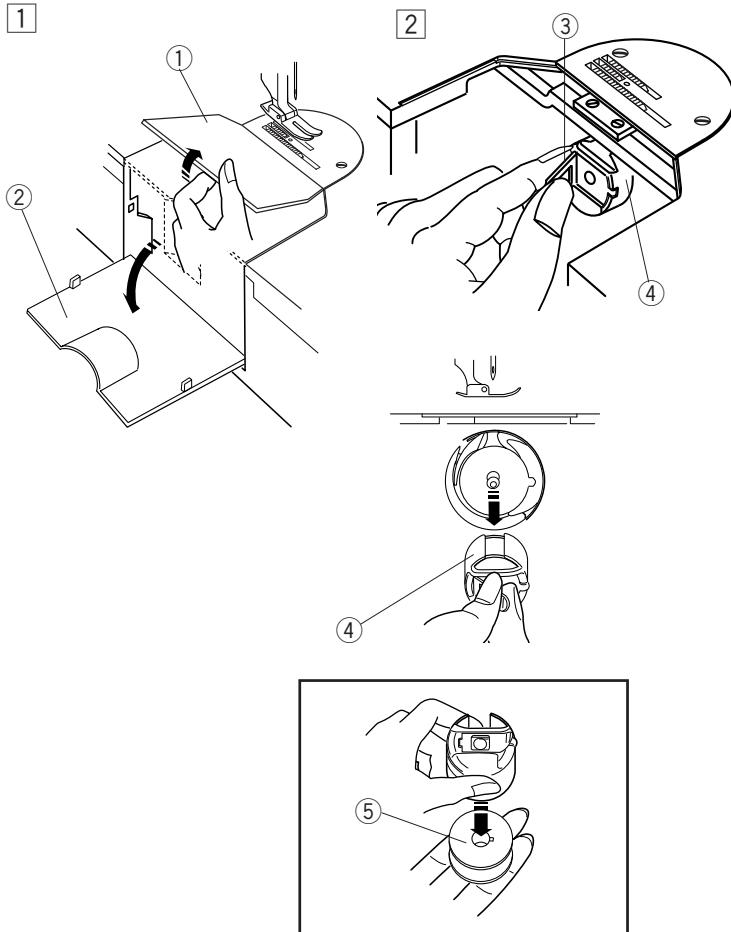
- ① Setscrew

To change the presser foot, raise the presser foot lifter.

Loosen the setscrew ①, choose the proper foot and insert it from the bottom.

Tighten the setscrew ① with the large screwdriver to secure the foot.

To Remove Bobbin Case and Bobbin



CAUTION

Turn the power switch off and unplug the sewing machine from the electrical outlet

① Hook cover plate

② Hook cover

③ Latch

④ Bobbin case

⑤ Bobbin

① Raise the needle and presser foot.

Remove the hook cover plate ① and open the hook cover ②.

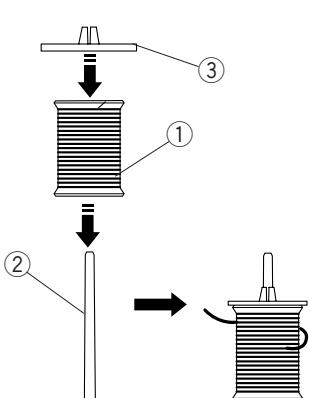
② Pull open the latch ③ of the bobbin case ④. Take the bobbin case straight out of the hook.

• **To remove the bobbin from the bobbin case:**

Release the latch, then drop the bobbin ⑤ out of the bobbin case as illustrated.

* Only use this exclusive bobbin for model 7100.

Setting the Spool of Thread



① Spool of thread

② Spool pin

③ Spool cap

• **Setting a spool of thread:**

Place a spool of thread ① on the spool pin ② with the thread coming off the spool as shown. Attach the spool cap ③, and press it firmly against the spool of thread.

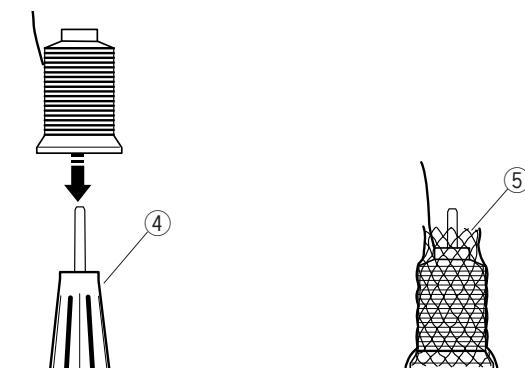
④ Spool holder

⑤ Net

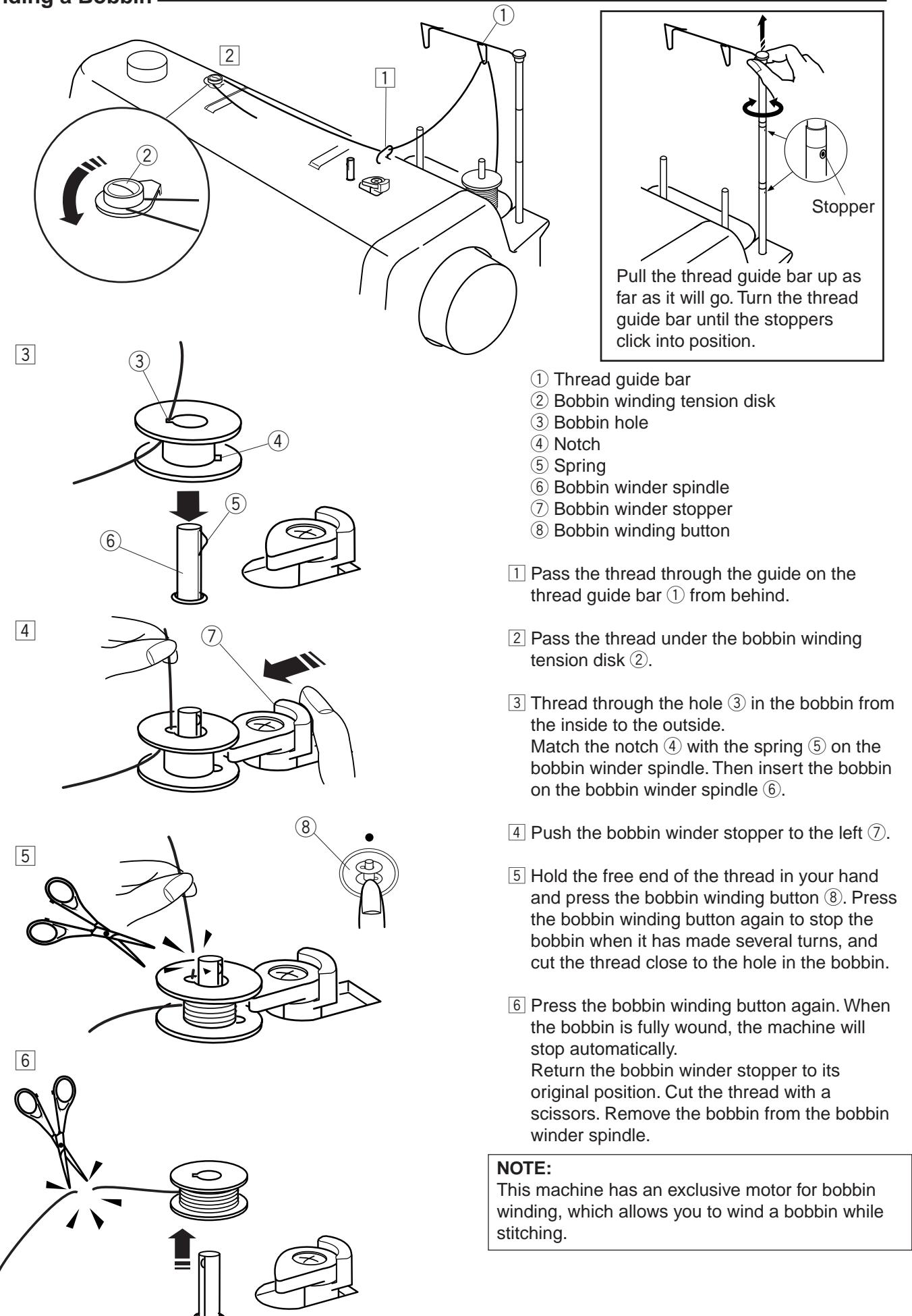
• **Setting the thread cone:**

Place the spool holder ④ on the spool pin, then place the thread cone on the spool holder.

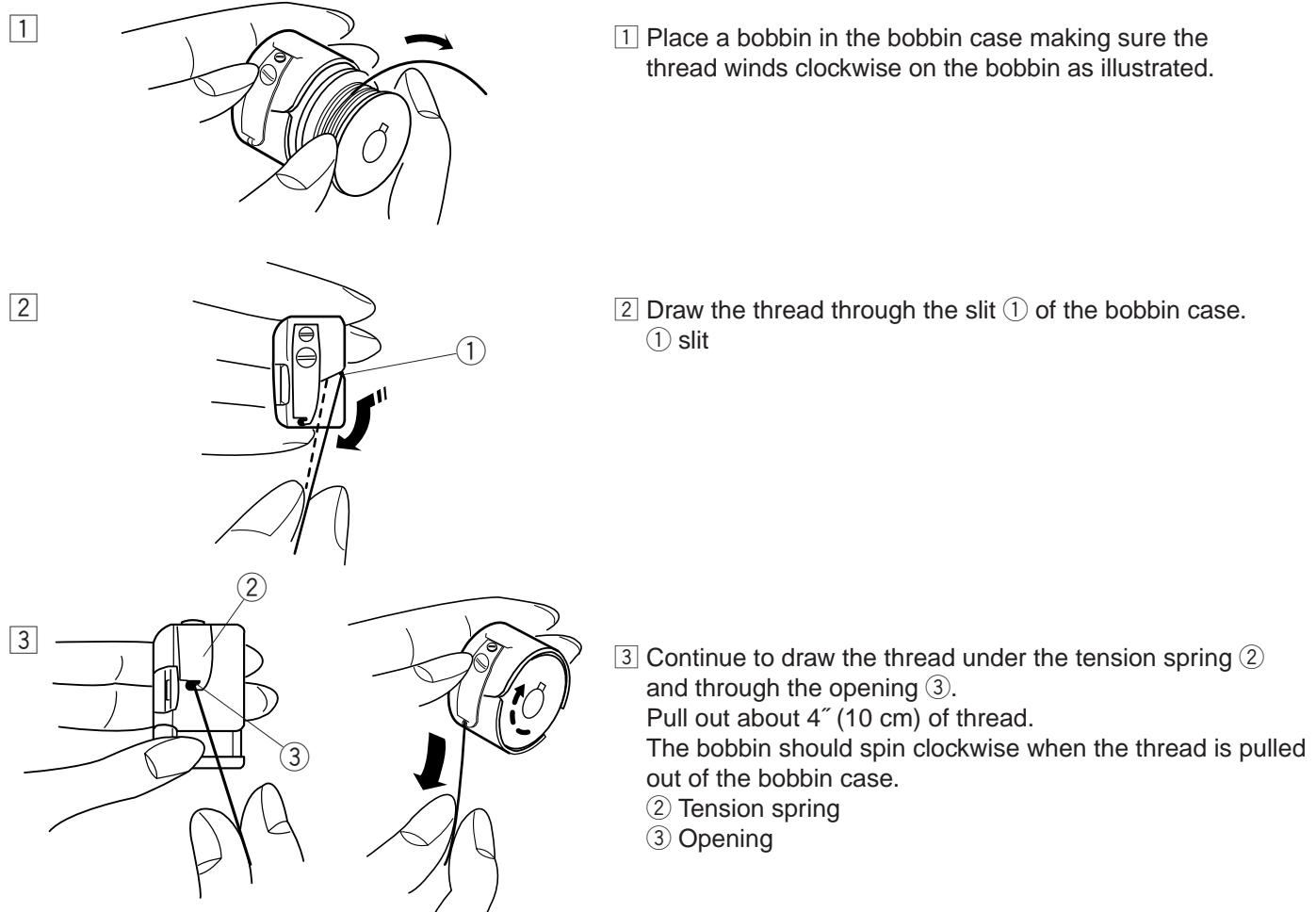
Cover the thread cone with the net ⑤ if the spool thread is shaky when sewing.



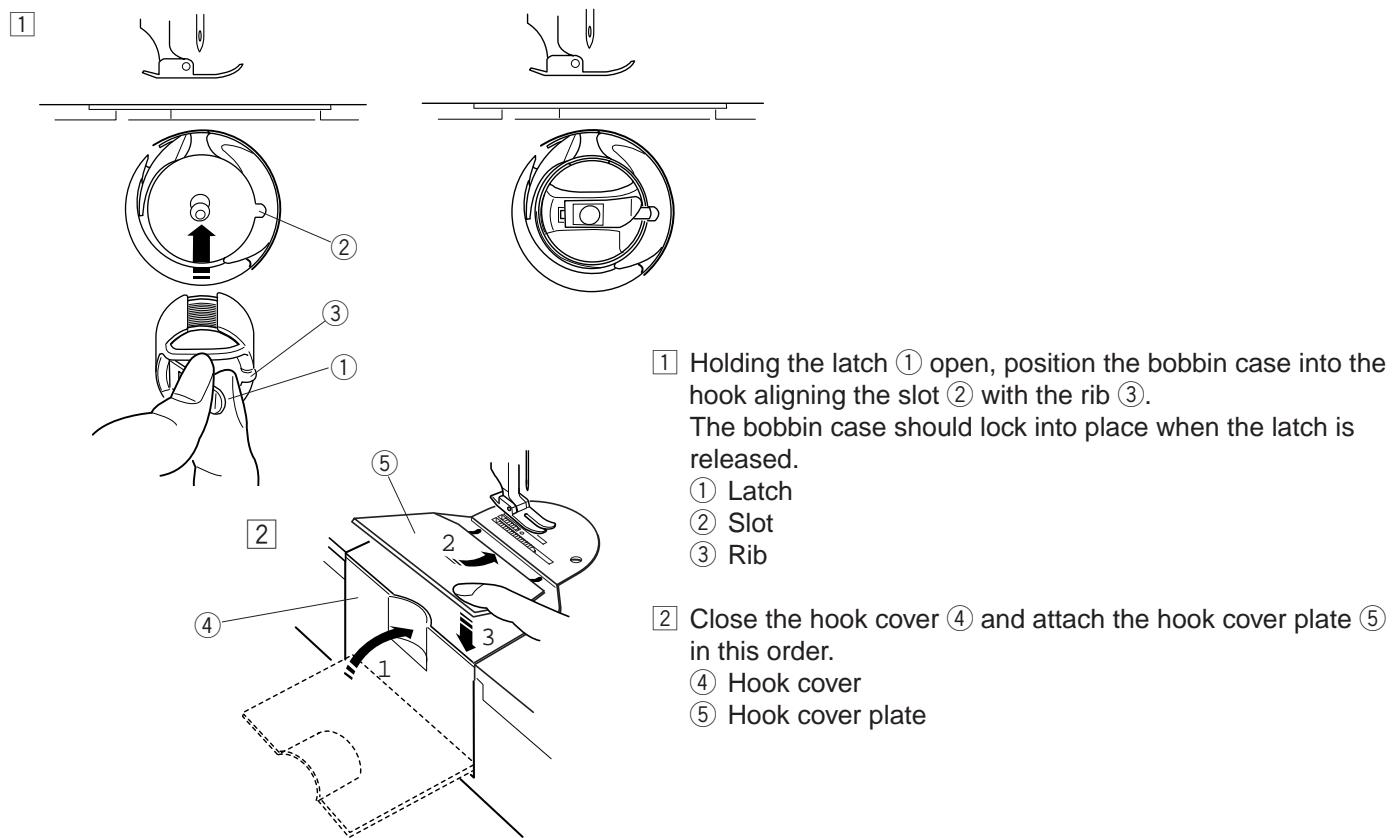
Winding a Bobbin



Inserting a Bobbin

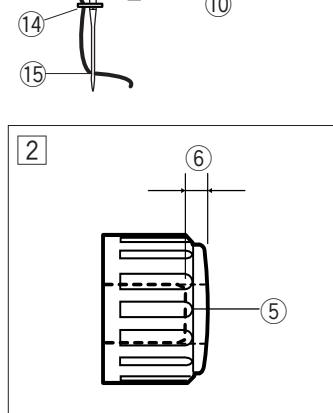
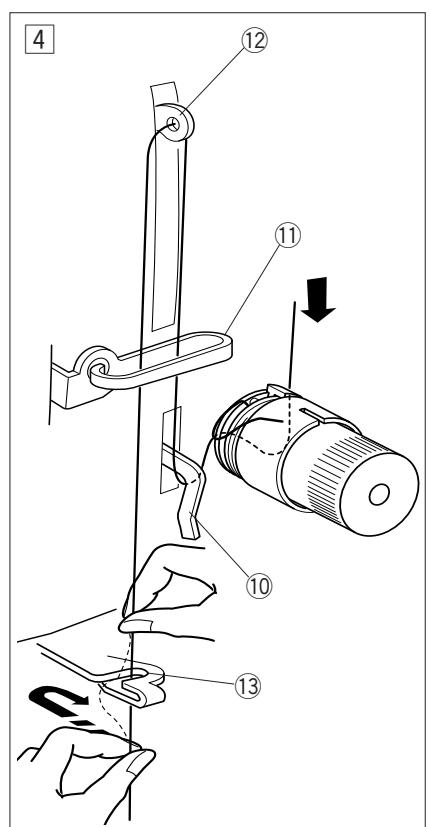
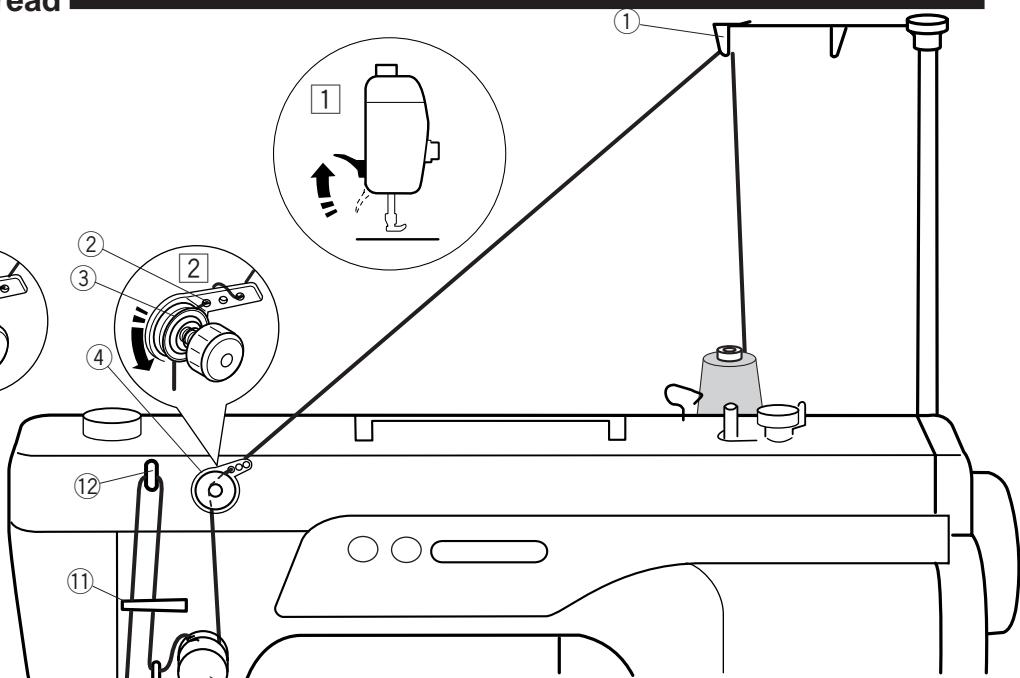
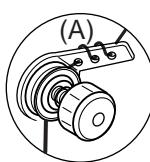
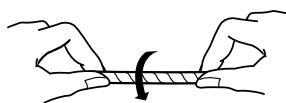


Inserting the Bobbin Case into the Hook



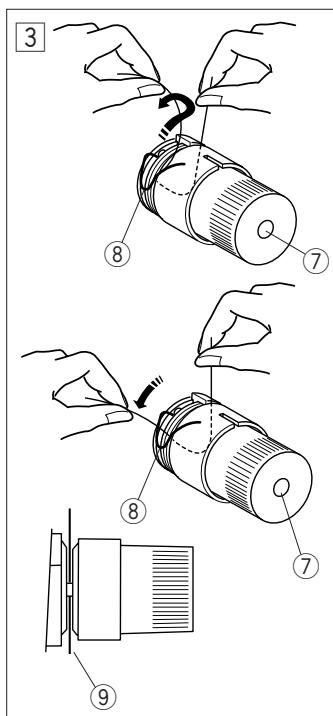
Threading the Needle Thread

* Use only left twist thread



1 Raise the presser foot lifter. Press the Up/Down needle button twice to raise the needle to its highest position. Turn the power switch off. Set a spool of thread on the spool pin. Pass the thread through the guide on the thread guide bar ① from the behind.

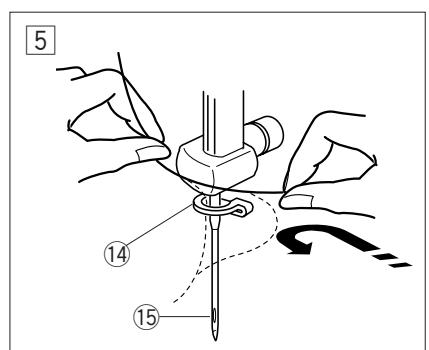
2 Pass the thread through the thread guide plate ②, then draw the thread between the pre-tension disks ③ under the pre-tension dial ④.
 * If the thread flutters around while sewing, pass the thread through three holes in the guide plate as illustrated in fig.(A).
 * The standard setting of the pre-tension dial is that the screw head ⑤ sinks about 4 mm (1/8" to 3/16") ⑥.



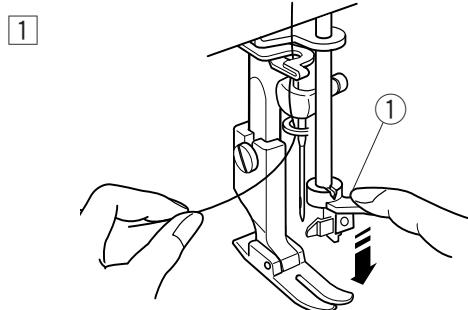
3 Holding the thread with both hands, draw the thread down and around the tension dial (7) from right to left. Pull the thread up to insert it between the tension disks (9) and pass it over the tail of the check spring. Then pull the thread down over the loop of the check spring (8).

4 Draw the thread through the thread guide ⑩, ⑪ and eye of the thread take-up lever ⑫. Pass the thread through the thread guide ⑪ again. Holding the thread with both hands, slip the thread into the thread guide ⑬ as shown.

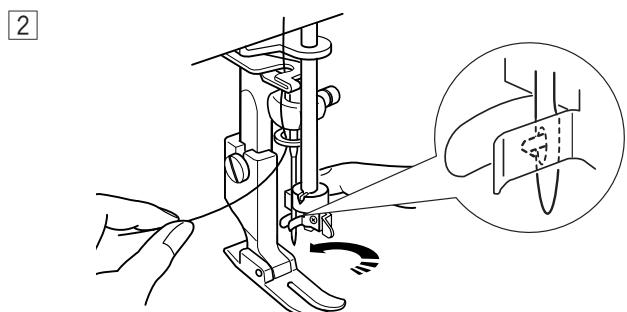
5 Draw the thread down to the needle bar thread guide ⑭, then pass the thread through the needle ⑮. To pass the thread through the needle eye, use the built-in thread cutter (see page 11).



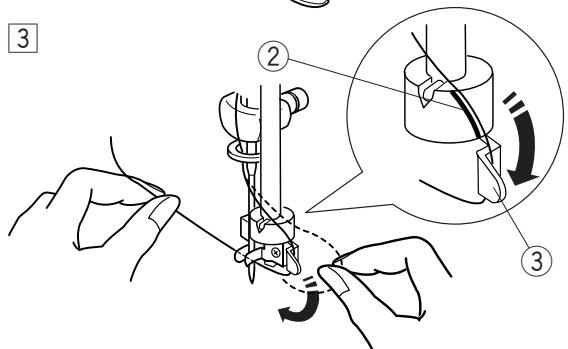
Built-in Needle Threader



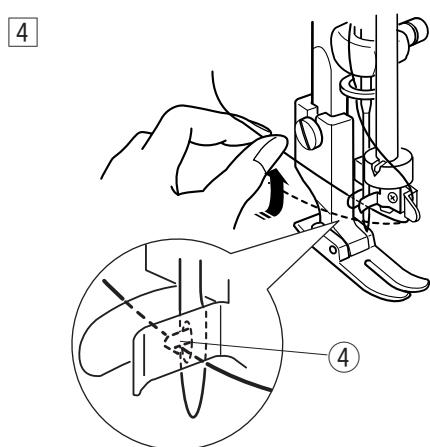
1 Lower the presser foot. Press the Up/Down needle button twice to raise the needle to its highest position. Turn the power switch off. Push down the needle threader knob ① as far as it will go.



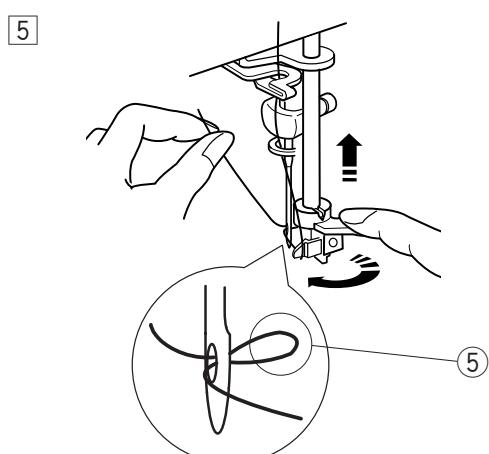
2 Turn the knob ① in the direction of the arrow to insert the hook into the needle eye. The hook ④ comes out through the needle eye as illustrated.



3 Holding the thread with both hands, draw the thread along the thread path ②. Then hook the thread around the guide ③.



4 Draw the thread under the hook ④. Hold the end of thread with your hand while pulling up the thread lightly in the direction of arrow.



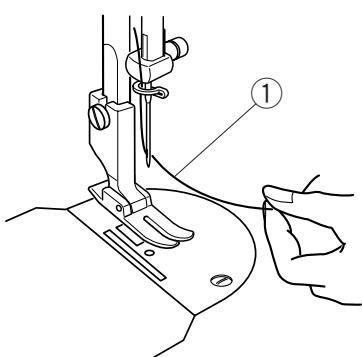
5 Turn the knob in the direction of the arrow as shown, drawing the thread loop ⑤ through the needle. Release the threader knob slowly. Then pull the thread loop ⑤ to the right.

The needle threader may not work well with these combinations.

Needle	
#9	#20, #30, #50, #60
#11	#20, #30
#14	#16, #20, #30

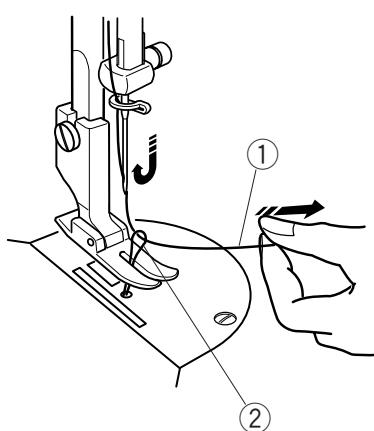
Drawing up the Bobbin Thread

1



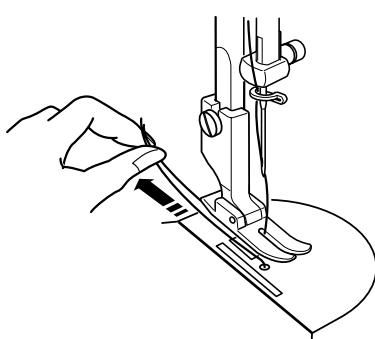
1 Hold the needle thread ① lightly with your left hand.

2



2 Turn the switch on. Press the Up/Down needle position button twice to pick up the bobbin thread ②. Pull the needle thread ① to bring up a loop of bobbin thread ②.

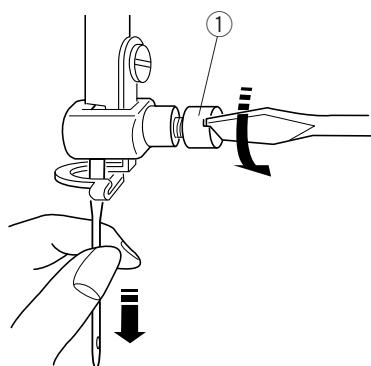
3



3 Slide 10 cm (4") of both threads to the rear under the presser foot.

Changing the Needle

1



CAUTION

Turn the power switch off and unplug the machine before changing the needle.

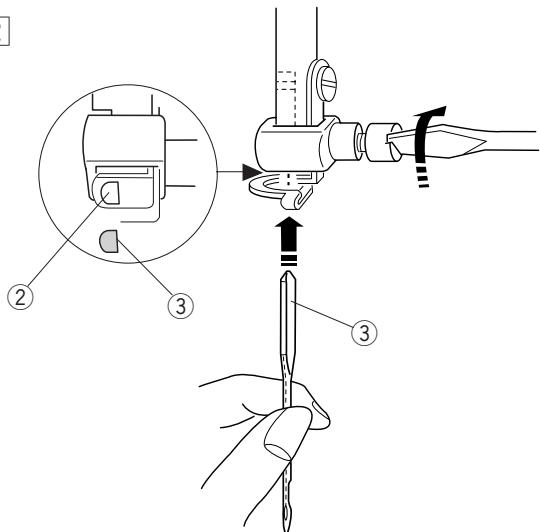
1 Turn the power switch off.

Lower the presser foot.

Turn the needle clamp screw (1) counterclockwise with the large screwdriver. Loosen the screw and remove the needle from the needle clamp.

(1) Needle clamp screw

2



2 Insert a new needle into the needle clamp (2) with the flat side (3) to the right, pushing it up as far as it will go.

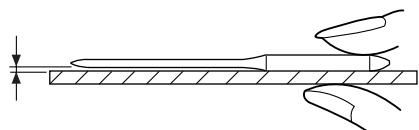
Tighten the clamp screw (1) firmly.

(2) Needle clamp

(3) Flat side

* Use an HL x 5 needle* Use an HL x 5 needle

To Check the Needle



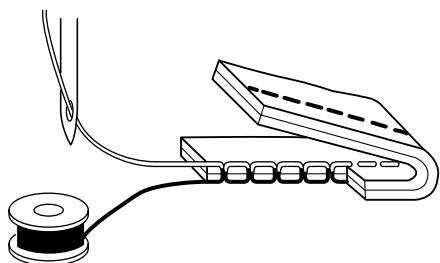
To determine if the needle is defective, place the flat side of the needle on something flat (a needle plate, piece of glass, etc.). The gap between the needle and the flat surface should be consistent.

Never use a blunt or blunt needle, as it may cause skipped stitches or thread breakage. Defective needles can ruin the fabric. Always purchase good quality needles. Change needles often.

Thread and Needle Chart

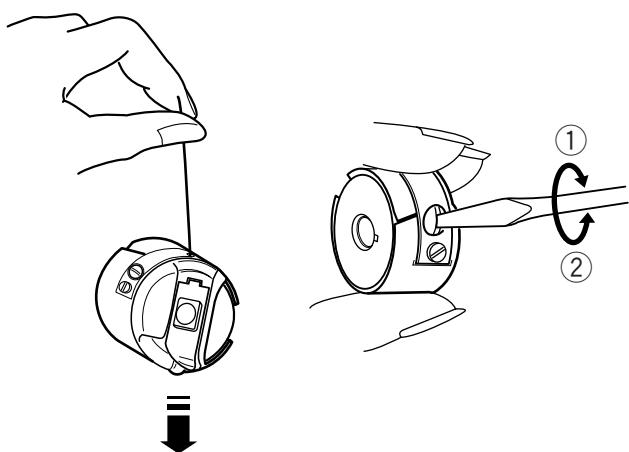
	Fabrics	Thread	Needle (HL x 5) size
Light weight	Crepe de chine, Voile, Lawn, Organdy, Georgette, Tricot	Fine silk Fine Cotton Fine Synthetic Covered Polyester	9 or 11
Medium weight	Linens, Cotton, Pique, Serge, Double Knits, Percale	50 silk 50 to 80 Cotton 50 to 60 Synthetic Cotton Covered Polyester	11 or 14
Heavy weight	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabric	50 silk 40 to 50 Cotton 40 to 50 Synthetic Cotton Covered Polyester	14, 16 or 18

Balancing Needle Thread Tension



The needle thread and bobbin thread should interlock in the center of two layers of the fabric in straight seams.

Adjusting Bobbin Thread Tension



Test the bobbin thread tension by holding the end of the bobbin thread and suspending the bobbin case as illustrated. Then jerk the bobbin case once by flicking your wrist.

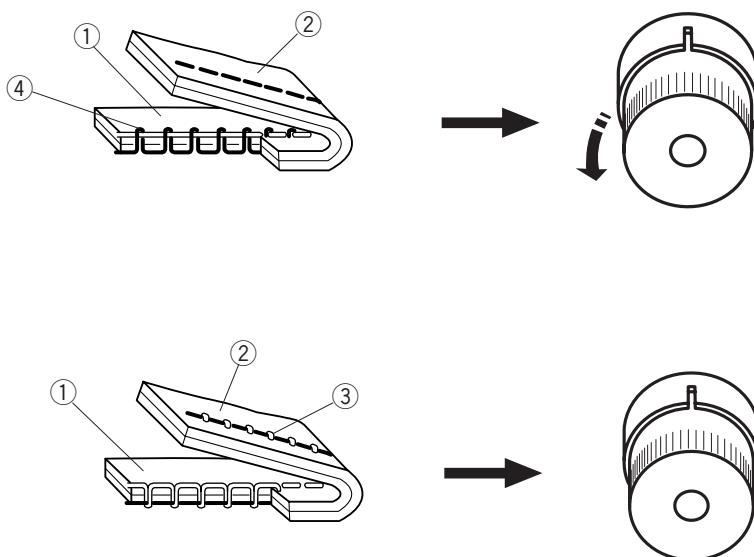
If the thread comes out of the bobbin case continuously, and the bobbin case keeps falling, the bobbin thread tension is too loose. Make a slight adjustment by turning the screw clockwise with the small screwdriver.

① To tighten

If the thread does not come out of the bobbin case at all, the bobbin thread tension is too tight. Make a slight adjustment by turning the screw counterclockwise with the small screwdriver.

② To loosen

Adjusting Needle Thread Tension



Needle thread tension is too tight:

If the bobbin thread ④ shows through on the right side of the fabric ① and it feels bumpy, loosen the needle thread tension by turning the dial to the left.

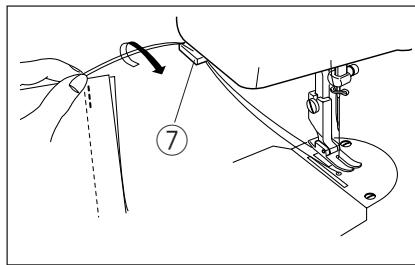
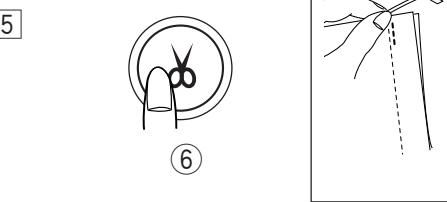
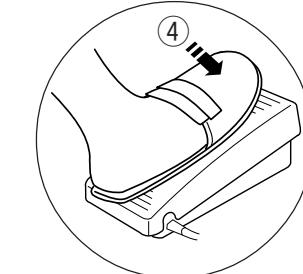
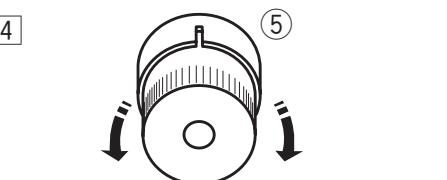
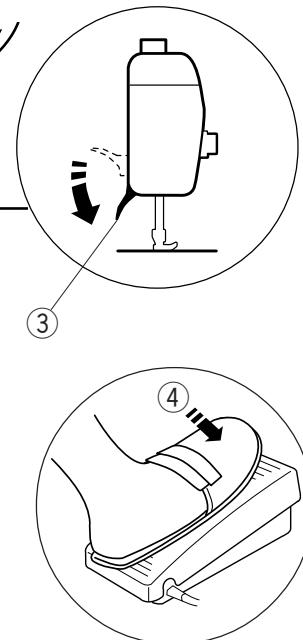
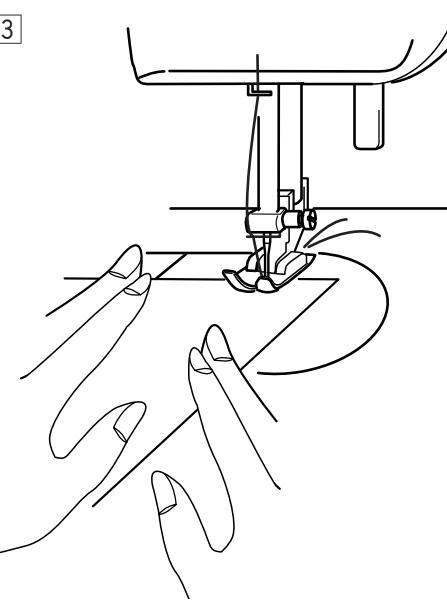
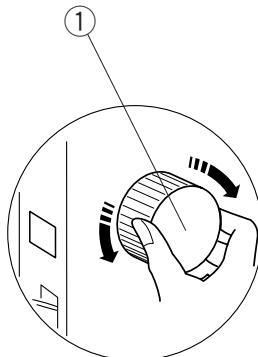
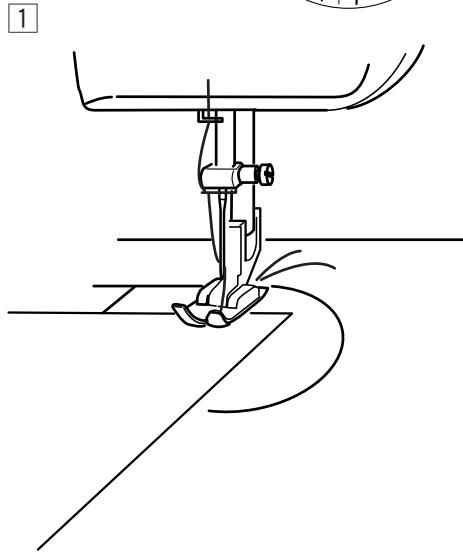
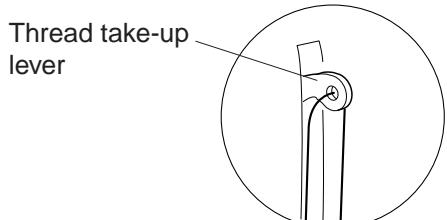
- ① Right side of the fabric
- ② Wrong side of the fabric
- ③ Needle thread
- ④ Bobbin thread

Needle thread tension is too loose:

If the needle thread ③ loops on the wrong side of the fabric ②, tighten the needle thread tension by turning the dial to the right.

HOW TO SEW

Test Stitching



NOTE:

Raise the thread take-up lever to its highest position, otherwise the needle thread may slip out from the needle eye.

Before you start sewing your garment, try test stitching with the same thread and fabric as your garment.

1 Turn the stitch length adjustment dial ① to adjust the stitch length.
Slide the needle and bobbin threads to the back under the presser foot. Use the same fabric for actual sewing.

2 Turn the handwheel ② toward you to lower the needle into the fabric.

3 Set the speed control slider to (slow) until you get used to the sewing speed.
Lower the presser foot lifter ③.
Press the foot control ④ to start sewing.

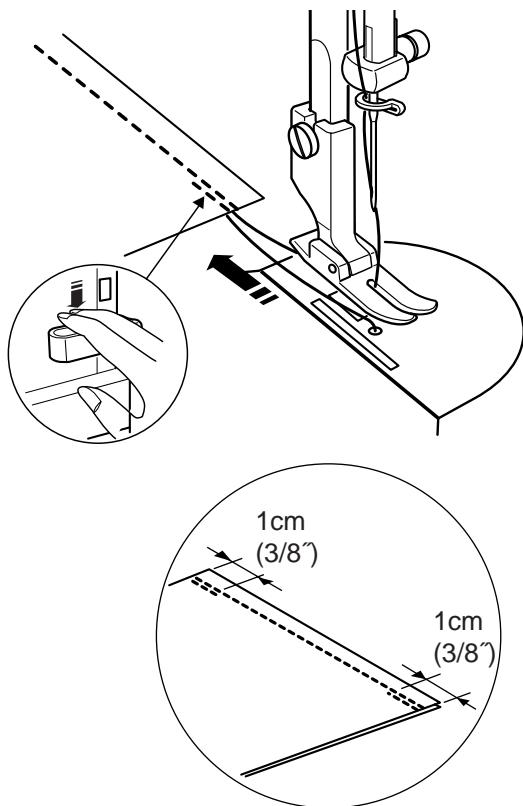
4 Check the sewing result and adjust the needle thread tension ⑤ as necessary.

5 Press the auto thread cutter button ⑥ to trim the threads.
You can continue sewing without pulling the bobbin thread up to the needle plate after trimming the threads.

* Use the thread cutter ⑦ on the face cover if the thread is thicker than #30.

Securing a Seam

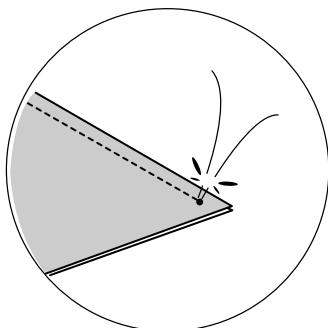
• By reverse stitching



The machine will sew in reverse as long as the reverse stitch lever is pressed.

Secure the beginning and end of a seam by sewing in reverse for about 1 cm (3/8").

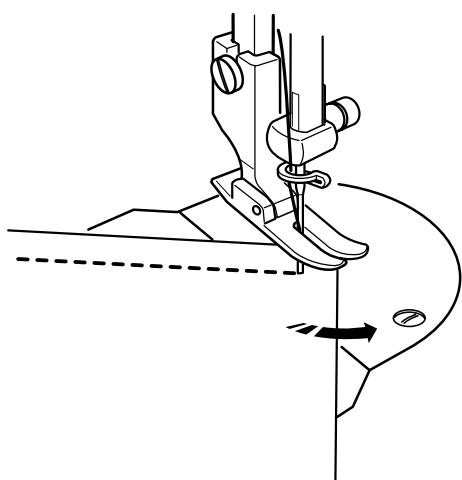
• By knotting the threads



Pull the bobbin thread to bring the needle thread to the wrong side of fabric.

Tie the threads together. Trim the remaining threads.

Turning a Square Corner



Stop the machine a few stitches before the end of the seam.

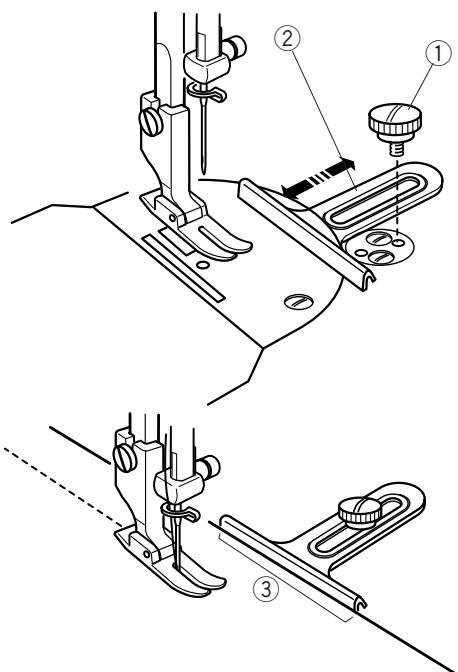
Press the up/down needle button a few times until the needle falls on the end of the seam.

Raise the presser foot.

Pivot the fabric around the needle to change the sewing direction.

Lower the presser foot and start sewing in a new direction.

Using the Cloth Guide

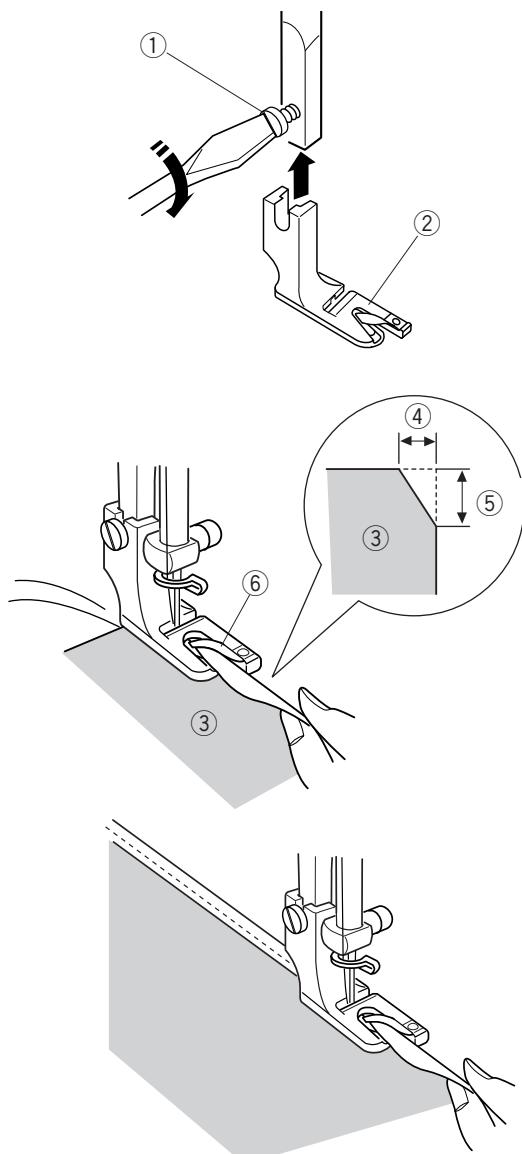


Attach the cloth guide to the needle plate with the screw ①.

Adjust the position of the cloth guide ② and tighten the screw ①.

Place the fabric with its edge ③ against the cloth guide and sew.

Rolled Hem



Attach the hemmer foot ② to the presser foot bar. Tighten the setscrew ① using the large screwdriver.

① Setscrew

② Rolled hem

Fold the edge of the fabric twice, 6 cm (2 3/8") in length and 0.3 cm (1/8") in width.

Trim the corner 0.5 cm (3/16") ④ by 0.8 cm (1/4") ⑤ for easier insertion of the hem into the foot.

③ Wrong side of the fabric

④ 0.5 cm (3/16")

⑤ 0.8 cm (1/4")

⑥ Curl of the foot

Position the fabric aligning the edge of hem with the curl of the foot ⑥.

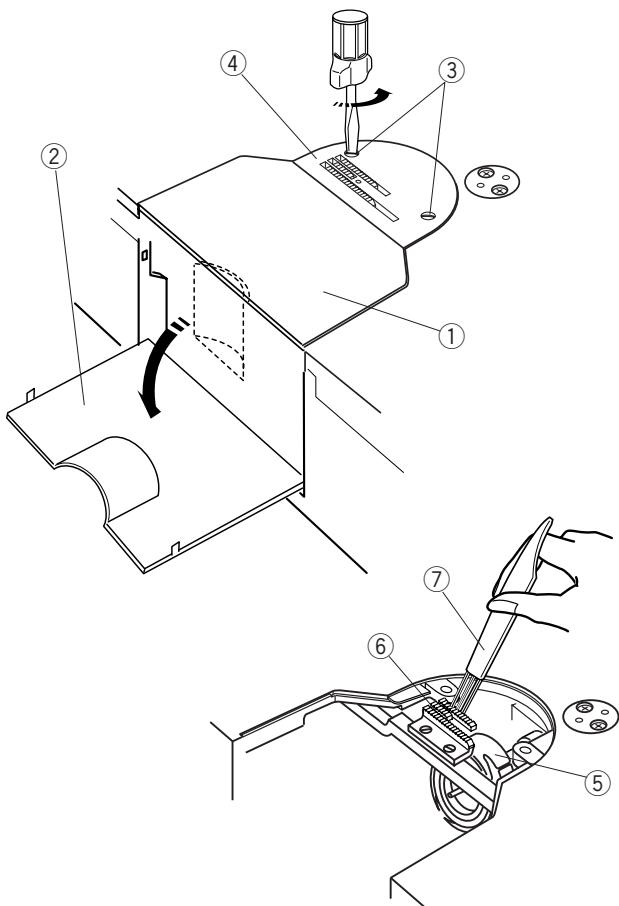
Lower the foot and sew 1–2 cm (1/2"–1") while pulling both threads to the back.

Stop the machine and lower the needle into the fabric. Raise the foot and insert the folded portion of the fabric into the curl of the foot.

Lower the foot, and then sew while lifting up the edge of the fabric to keep it feeding smoothly and evenly.

CARE & MAINTENANCE

Cleaning the Hook and Feed Dog



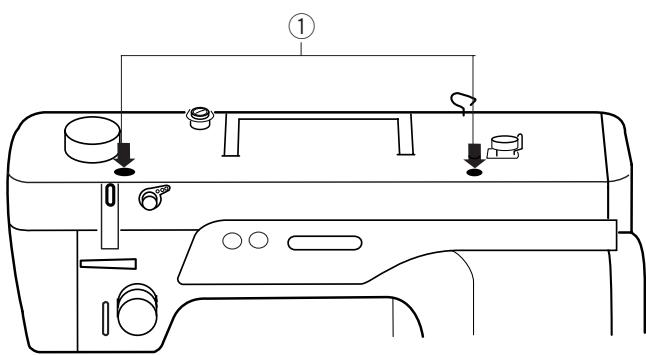
CAUTION:

Turn the power switch off and unplug the machine before cleaning.

- 1 Remove the needle and presser foot.
- 2 Remove the hook cover plate ① and open the hook cover ②.
- 3 Loosen the setscrew ③ and remove the needle plate ④.
- 4 Clean the hook ⑤ and feed dog ⑥ with a lint brush ⑦.
- 5 After cleaning the machine, attach the needle plate ④, needle and presser foot.

① Hook cover plate
② Hook cover
③ Setscrew
④ Needle plate
⑤ Hook
⑥ Feed dog
⑦ Lint brush

Oiling the Machine



NOTE:

Unplug the machine before oiling.

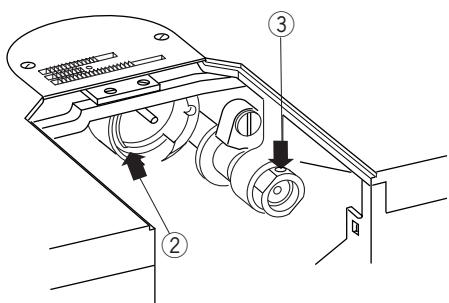
Oil the points as shown (①, ② and ③) with two or three drops of oil. Use only sewing machine oil MO-70 for this sewing machine.

Oil the machine once a day if you use the machine frequently.

Use a soft, dry cloth to remove excess oil.

Remove the bobbin case from the hook when you oil the hook race.

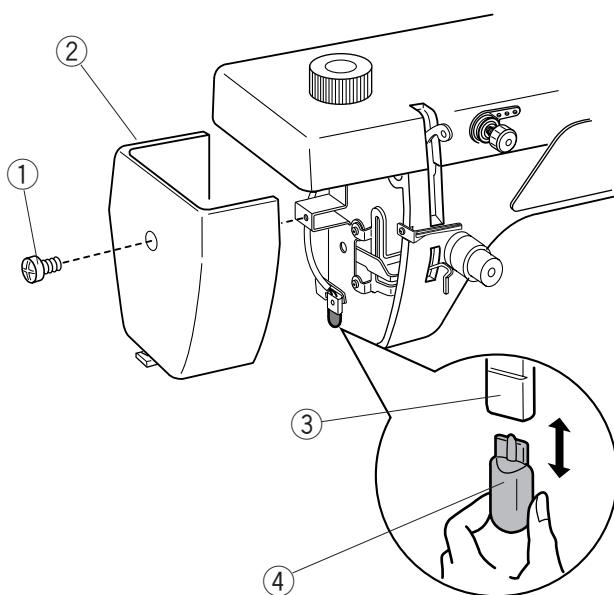
After oiling, stitch a piece of waste fabric to absorb excess oil.



Replacing the Light Bulb

CAUTION:

Turn the power off before replacing the light bulb.
The bulb could be HOT, wait until it has cooled down before touching it.



① Setscrew

② Face cover

③ Lamp socket

④ Light bulb

To remove:

Remove the setscrew ①.

Remove the face cover ②.

Pull out the bulb ④ from the lamp socket ③.

To replace:

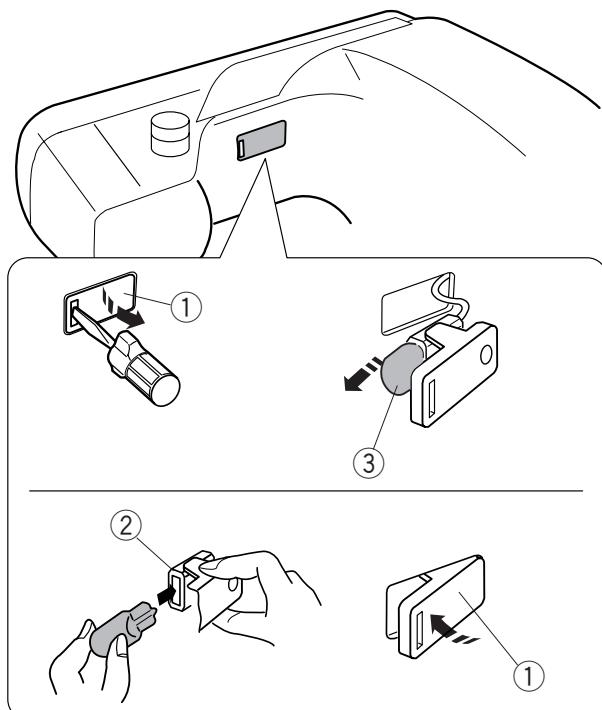
Insert a new bulb into the opening of the socket ③.

Attach the face cover ② with the setscrew and cap.

Replace the bulb with the same type, rated 12 V, 5 W.

Replacing the Light Bulb on the Underside of the Sewing Arm

Lay the machine on its back.



Detach the lamp window ① from the machine with the screw driver as shown.

Pull out the light bulb ③ from the socket.

Insert a new bulb into the socket ②.

Attach the lamp window ① into the opening on the machine.

① Lamp window

② Lamp socket

③ Light bulb

Replace the bulb with the same type, rated 12 V, 5 W.

Troubleshooting

Condition	Cause	Reference
The needle thread breaks.	<ol style="list-style-type: none"> 1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is incorrectly inserted. 5. The needle thread and the bobbin thread are not set under the presser foot when starting sewing. 6. The thread is either too heavy or too fine for the needle. 	See page 10 See page 14 See page 13 See page 13 See page 12 See page 13
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not threaded properly in the bobbin holder. 2. Lint has collected in the hook race. 3. The bobbin is damaged and doesn't turn smoothly. 	See page 9 See page 18 Replace the bobbin.
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle clamp screw is loose. 3. The needle is too fine for the fabric being used. 	See page 13 See page 13 See page 13
Skipped stitches	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted, bent or blunt. 2. The needle and/or fabrics are not suitable for the work being sewn. 3. The needle thread is not threaded properly. 4. A poor quality needle is being used. 	See page 13 See page 13 See page 10 Change the needle.
Seam puckering	<ol style="list-style-type: none"> 1. The needle thread tension is too tight. 2. The needle thread is not threaded properly. 3. The needle is too heavy for the fabric being sewn. 4. The stitch length is too long for the fabric. 	See page 14 See page 10-11 See page 13 Make the stitch shorter
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> 1. The feed dog is packed with lint. 2. The stitches are too fine. 	See page 18 Make the stitch longer
Stitches form loops below the fabric.	<ol style="list-style-type: none"> 1. The needle thread tension is too loose. 2. The needle is either too heavy or too fine for the thread. 	See page 14 See page 13
The machine does not work.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. Thread has been caught in the hook race. 	See page 4 See page 18
The machine does not run smoothly and is noisy.	<ol style="list-style-type: none"> 1. Thread has been caught in the hook race. 2. Lint has built up in the hook race. 3. The machine needs oiling. 	See page 18 See page 18 See page 18



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